Amendments to the Specification:

Please replace the title with the following title:

METHOD AND SYSTEM FOR PROCESSING INGRESS MESSAGES FOR A STATE BASED APPLICATION ASSOCIATED WITH A NETWORK PROCESSOR

Please amend the paragraph beginning on page 4, line 17 as follows:

Figure 2 is a flowchart illustrating a preferred embodiment of a method for performing state based ingress packet selection for a packet processing system in a network processor in accordance with the present invention. Figure 3 illustrates a preferred embodiment of a network processor system utilizing the method in accordance with the present invention. Referring to both Figures 2 and 3, first, a set of message classes are assigned to a semaphore 310, via step 202, where the set of message classes is associated with a state of an application 304. The set of message classes and the set of application states are defined at application design time. Associating a set of message classes with a state of an application means that the application is interested in ingress messages that belong to the set of message classes while it is in that state. A semaphore is a basic facility of the operating system (OS) 308. Semaphores are ~~It is~~ used to wake applications and are known in the art. The present invention utilizes a semaphore 310 by assigning a set of message classes to ~~it~~ the semaphore 310. When a message 306 is received, via step 204, the OS 308 determines if the message 306 belongs to a message class in the set of message classes, via step 206. If so, then the semaphore 310 assigned the set of message classes wakes the application 304. Since the set of message classes are assigned to the semaphore 310, and since the set of classes are associated with a state of the application interested in messages belonging to the set of classes, the semaphore 310 only wakes the application 304 when a message in which ~~it~~ the application is interested is received.